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EXAMINER				
KANERVO, VIRPI H				
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3691				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/526,835

**Applicant(s)**

HOGLUND, ANDERS

**Examiner**

VIRPI H. KANERVO

**Art Unit**

3691

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-7 are presented for examination. Applicant filed an amendment on 12/30/2008 amending claims 1-3, and arguing against the rejection of the claims 1-7. After careful consideration of Applicant's amendments and arguments, Examiner maintains the grounds of rejection of previously pending elements, and establishes new grounds of rejection for the newly added elements of claims 1-7. Since Examiner has maintained the grounds of rejection of previously pending elements, and new grounds of rejection for the newly added elements are necessitated by the Applicant's amendments, the rejection of claims 1-7 is a FINAL rejection of the claims.

### ***Response to Arguments***

2. Applicant's arguments with respect to rejection of claims 1-7 under § 101 have been considered, but Examiner finds them non-persuasive. Claims 1-7 are directed to a method. In order for a method claim to be directed to a statutory subject matter, the critical steps of the method must be tied to another statutory class, *i.e.*, machine or apparatus. Also, method claim merely having another

statutory class in the preamble in absence of a tie to another statutory class in the body of the claim does not render the claims statutory. In the instant case, Applicant could, *e.g.*, carry out the critical steps of the method by a computer.

3. Applicant's arguments with respect to rejection of claims 1-7 under § 103 have been considered, but Examiner finds them non-persuasive.

(i) Applicant argues that the main reference Raines (6,904,336 B2) cited by Examiner has a filing date 8 November 2002, and that it is therefore not prior art because the priority date of the instant application is 8 September 2002. While it is true that the instant application has a priority date (6 September 2002) before the filing date of the Raines (8 November 2002), Raines has a priority date December 28, 2001, based on the provisional application (60/342,853) that has specification supporting the subject matter. Therefore, Raines is prior art to the instant application.

(ii) Applicant argues that Raines "fails to teach or suggest the step of determining a marginal cost (m1) for reducing one emission unit of the pollutant." Examiner disagrees. Raines specifically discloses "estimate energy savings" (Raines; Fig. 7, Step 1; where "baseline energy use (ESb,m)" is m1).

Applicant further argues that Raines "also fails to teach the step of determining a future cost (n1) for one emission unit of the pollutant." Examiner

disagrees. Raines specifically discloses "estimate energy savings" (Raines; Fig. 7, Step 1; where "program energy use (ESp,m)" is n1).

Applicant also argues that Raines fails to teach "investing in emission reducing equipment when the marginal cost is less than or the same as the futures cost." Examiner disagrees. Raines specifically discloses "calculate emission reductions" (Raines; Fig. 7, Step 4; where "actual emission reductions  $ER_m = EM_{b,m} - Emp,m$ " is calculated using m1 and n1), and "energy savings opportunity may comprise any or more of a variety of energy efficient improvements" including "replacing older appliances with more energy efficient appliances" (Raines: col. 7, lines 8-11). Thus Raines teaches investing in emission reducing equipment when the cost of doing so will result in savings.

(iii) Applicant argues that claim 1 is not obvious over Raines in view of McGill (2003/0101125 A1), and further in view of Hull (Hull, John C.: *Options, Futures, and Other Derivatives*, 3<sup>rd</sup> Ed., 1997) under 35 U.S.C. § 103(a). Applicant argues specifically that "*prima facie* support for combining the references ... has not been provided in the present Office action." Applicant argues specifically that Examiner's combining of the references is not supported by *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Examiner disagrees.

The rationale to support a conclusion that the claim would have been obvious is that (1) all the claimed elements were known in the prior art; (2) one skilled in the art could have combined the elements as claimed by known

methods with no change in their respective functions; and **(3)** the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention. *KSR International Co. v. Teleflex Inc.*

Here, **(1)** Raines discloses all the other elements of the claim 1, except setting an emission fee (s1) to be the same as a closing price of the futures cost (n1) at an expiration of a futures contract term; the polluter selling the delta quantity (d) of futures at the futures cost (n1); changing futures cost from (n1) to (n2); at the expiration of the futures contract term, the polluter buying back the delta quantity (d) of futures at futures cost (n2); and profiting from buying back the futures when the future cost (n2) is lower than the future cost (n1). McGill discloses setting an emission fee (s1) to be the same as a closing price of the futures cost (n1) at an expiration of a futures contract term; and the polluter selling the delta quantity (d) of futures at the futures cost (n1). Hull discloses changing futures cost from (n1) to (n2); at the expiration of the futures contract term, the polluter buying back the delta quantity (d) of futures at futures cost (n2); and profiting from buying back the futures when the future cost (n2) is lower than the future cost (n1). Therefore, all the claimed elements were known in the prior art. **(2)** McGill and Hull do not change the existing elements in Raines. Also, the elements in McGill and Hull, which are combined with the elements of Raines, remain the same after combining the elements of Raines, McGill, and Hull. Therefore, one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. **(3)** The results of

combination of Raines, McGill, and Hull, are predictable because the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention.

Therefore, claim1 is obvious over Raines in view of McGill, and further in view of Hull under 35 U.S.C. § 103(a).

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-7 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is independent claim, and it is directed to method that is not linked to another statutory class, *i.e.*, it is directed to non-statutory subject matter. Therefore, claim 1 is rejected as directed to non-statutory subject matter. Claims 2-7 all depend from claim 1. None of the dependent claims 2-7 correct the non-statutory subject matter in claim 1. Therefore, claims 2-7 are also rejected for being directed to non-statutory subject matter.

In order for a method claim to be directed to a statutory subject matter, the critical steps of the method must be tied to another statutory class, *i.e.*, machine or apparatus. Also, method claim merely having another statutory class in preamble in absence of another statutory class does not render the claims statutory. In the instant case, Applicant could, *e.g.*, carry out the critical steps of the method by a computer.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 4-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Raines (6,904,336 B2) in view of McGill (2003/0101125 A1), and further in view of Hull (Hull, John C.: *Options, Futures, and Other Derivatives*, 3<sup>rd</sup> Ed., 1997).

As to claim 1, Raines shows the polluter emitting a first quantity (x1) of the pollutant (Raines: col. 4, lines 9-12); determining a marginal cost (m1) for



reducing one emission unit of the pollutant (Raines: Fig. 7, step 1; and col. 3, lines 63-65); determining a futures cost ( $n_1$ ) for one emission unit of the pollutant (Raines: Fig. 7, step 1); in a comparison unit, comparing the marginal cost ( $m_1$ ) with the futures cost ( $n_1$ ) (Raines: Fig. 7, step 1); when the marginal cost ( $m_1$ ) is less than or the same as the futures cost ( $n_1$ ), invest in emission reducing equipment to reduce emission from the first quantity ( $x_1$ ) to a second quantity ( $x_2$ ), a difference between the first quantity ( $x_1$ ) and the second quantity ( $x_2$ ) being a delta quantity ( $d$ ) (Raines: col. 7, lines 9-15); and the polluter reducing the emission of the pollutant from the first quantity ( $x_1$ ) to the second quantity ( $x_2$ ) (Raines: Fig. 7, step 4).

Raines does not show setting an emission fee ( $s_1$ ) to be the same as a closing price of the futures cost ( $n_1$ ) at an expiration of a futures contract term; and the polluter selling the delta quantity ( $d$ ) of futures at the futures cost ( $n_1$ ). McGill shows setting an emission fee ( $s_1$ ) to be the same as a closing price of the futures cost ( $n_1$ ) at an expiration of a futures contract term (McGill: page 3, ¶ 29); and the polluter selling the delta quantity ( $d$ ) of futures at the futures cost ( $n_1$ ) (McGill: page 3, ¶ 29). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of Lundgren by setting an emission fee ( $s_1$ ) to be the same as a closing price of the futures cost ( $n_1$ ) at an expiration of a futures contract term; and the polluter selling the delta quantity ( $d$ ) of futures at the futures cost ( $n_1$ ) of McGill in order to

provide for speculating in the market with a small minimum trade size while still providing high leverage capabilities (McGill: page 3, ¶ 26).

Raines in view of McGill does not show changing futures cost from (n1) to (n2); at the expiration of the futures contract term, the polluter buying back the delta quantity (d) of futures at futures cost (n2); and profiting from buying back the futures when the future cost (n2) is lower than the future cost (n1). Hull shows changing futures cost from (n1) to (n2) (Hull: page 48, section "Short Selling"); at the expiration of the futures contract term, the polluter buying back the delta quantity (d) of futures at futures cost (n2) (Hull: page 48, section "Short Selling"); and profiting from buying back the futures when the future cost (n2) is lower than the future cost (n1) (Hull: page 48, section "Short Selling"). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of McGill by changing futures cost from (n1) to (n2); at the expiration of the futures contract term, the polluter buying back the delta quantity (d) of futures at futures cost (n2); and profiting from buying back the futures when the future cost (n2) is lower than the future cost (n1) of Hull in order to produce a profit (Hull: page 48, section "Short Selling").

As to claim 4, Raines in view of McGill, and further in view of Hull, shows all the elements of claim 1. Raines in view of Hull does not show buying futures equivalent to the first pollution quantity (x1) at the futures cost (n1) when the marginal cost (m1) is greater than the futures cost (n1). McGill shows buying

futures equivalent to the first pollution quantity ( $x_1$ ) at the futures cost ( $n_1$ ) when the marginal cost ( $m_1$ ) is greater than the futures cost ( $n_1$ ) (McGill: page 3, ¶ 29). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of Hull by buying futures equivalent to the first pollution quantity ( $x_1$ ) at the futures cost ( $n_1$ ) when the marginal cost ( $m_1$ ) is greater than the futures cost ( $n_1$ ) of McGill in order to provide for speculating in the market with a small minimum trade size while still providing high leverage capabilities (McGill: page 3, ¶ 26).

As to claim 5, Raines in view of McGill, and further in view of Hull, shows all the elements of claim 4. Raines in view of McGill does not show calculating a fee ( $s_3$ ) as the futures cost ( $n_2$ ) multiplied by the first quantity ( $x_1$ ) and paying the fee ( $s_3$ ) at the end of time period ( $t_2$ ). Hull shows calculating a fee ( $s_3$ ) as the futures cost ( $n_2$ ) multiplied by the first quantity ( $x_1$ ) and paying the fee ( $s_3$ ) at the end of time period ( $t_2$ ) (Hull: page 16, section "Trading Futures Contracts"). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of McGill by calculating a fee ( $s_3$ ) as the futures cost ( $n_2$ ) multiplied by the first quantity ( $x_1$ ) and paying the fee ( $s_3$ ) at the end of time period ( $t_2$ ) of Hull in order to produce a profit (Hull: page 48, section "Short Selling").

As to claim 6, Raines in view of McGill, and further in view of Hull, shows all the elements of claim 5. Raines in view of Hull does not show that the method further comprises selling the first quantity ( $x_1$ ) of futures at the futures cost ( $n_2$ ). McGill shows that the method further comprises selling the first quantity ( $x_1$ ) of futures at the futures cost ( $n_2$ ) (McGill: page 3, ¶ 29). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of Hull by selling the first quantity ( $x_1$ ) of futures at the futures cost ( $n_2$ ) of McGill in order to provide for speculating in the market with a small minimum trade size while still providing high leverage capabilities (McGill: page 3, ¶ 26).

As to claim 7, Raines in view of McGill, and further in view of Hull, shows all the elements of claim 6. Raines also shows that the method further comprises determining a total cost ( $T_2$ ) by adding the fee ( $s_1$ ) and the fee ( $s_3$ ) and the quantity ( $x_1$ ) multiplied by the difference between the futures cost ( $n_2$ ) and the futures cost ( $n_1$ ) (Raines: Fig. 7, Step 4).

8. Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Raines in view of McGill, further in view of Hull, and further in view of Lundgren (5,608,620).

As to claim 2, Raines in view of McGill, and further in view of Hull, shows all the elements of claim 1. Raines in view of McGill, and further in view of Hull, does not show that the method further comprises paying an emission fee (s1) at a beginning of time period (t1). Lundgren shows that the method further comprises paying an emission fee (s1) at a beginning of time period (t1) (Lundgren: col. 18, lines 10-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of McGill, and further in view of Hull, by paying an emission fee (s1) at a beginning of time period (t1) of Lundgren in order to enabling the economy to achieve pollution reduction in the cheapest manner possible (Lundgren: col. 18, lines 19-20).

As to claim 3, Raines in view of McGill, further in view of Hull, and further in view of Lundgren, shows all the elements of claim 2. Raines in view of McGill, and further in view of Hull, does not show that the method further comprises paying an emission fee (s2) at a beginning of time period (t2). Lundgren shows that the method further comprises paying an emission fee (s2) at a beginning of time period (t2) (Lundgren: col. 18, lines 10-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Raines in view of McGill, and further in view of Hull, paying an emission fee (s2) at a beginning of time period (t2) of Lundgren in order to enabling the economy to

achieve pollution reduction in the cheapest manner possible (Lundgren: col. 18, lines 19-20).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wagner (4,903,201) discloses automated futures trading exchange.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIRPI H. KANERVO whose telephone number is 571-272-9818. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Virpi H. Kanervo

/Alexander Kalinowski/

Supervisory Patent Examiner, Art Unit 3691